

By- Rajat Sir

USE CODE Y293 FOR MAX. DISCOUNT

Adda247

CLASSIFICATION OF FINE GRAINED SOIL

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Adda247

BILINGUAL

DDA JE

TARGET BATCH

Civil Engineering



Start Feb 16, 2023

10 AM to 10 PM

BILINGUAL

SSC JE 2023 Foundation

Civil Engineering



नीव आपके सिलेक्शन का

Start Feb 13, 2023

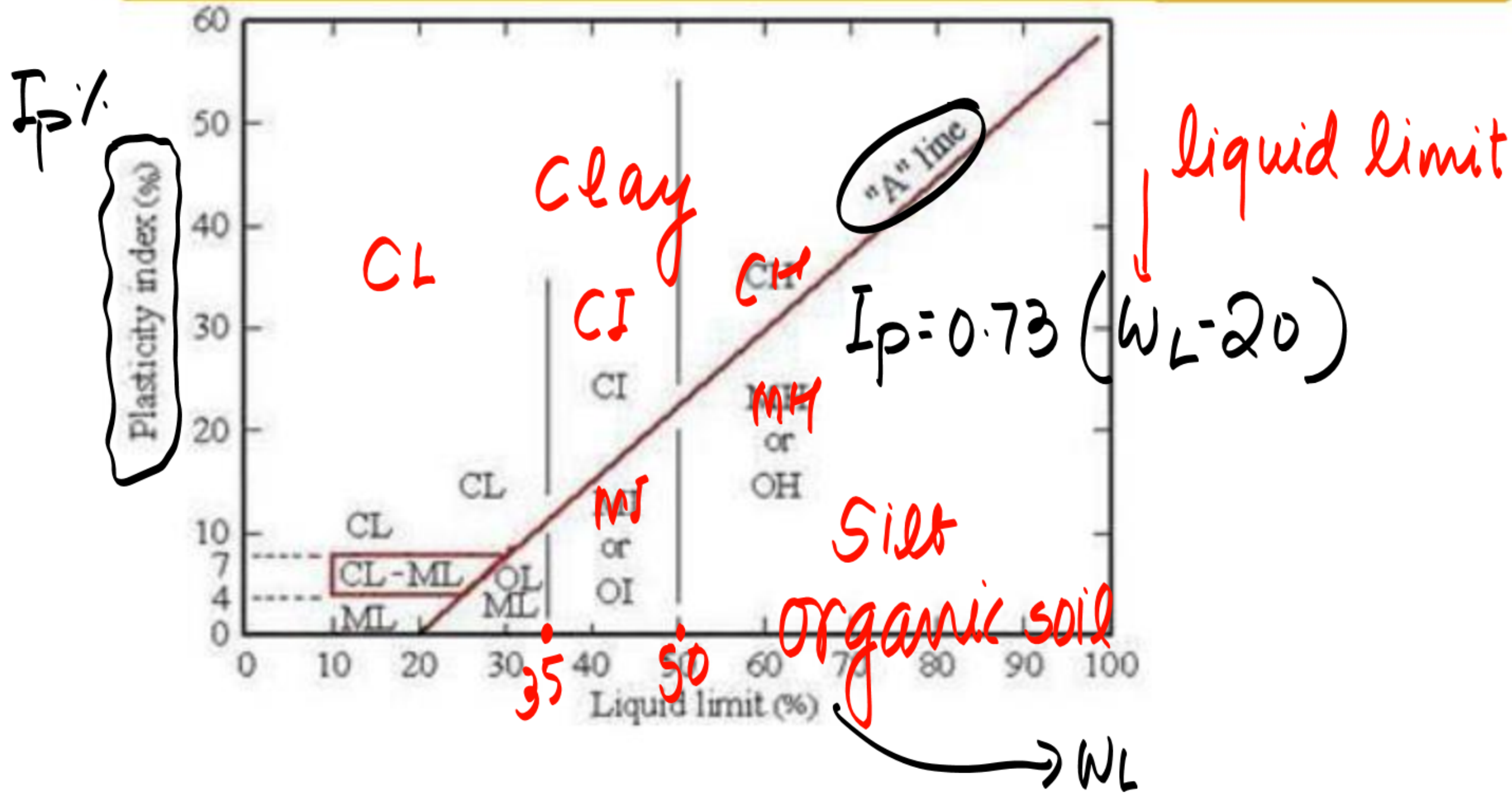
9 AM to 11 PM

ADD247

Y293



CLASSIFICATION OF FINE GRAINED SOIL



CLASSIFICATION OF FINE GRAINED SOIL

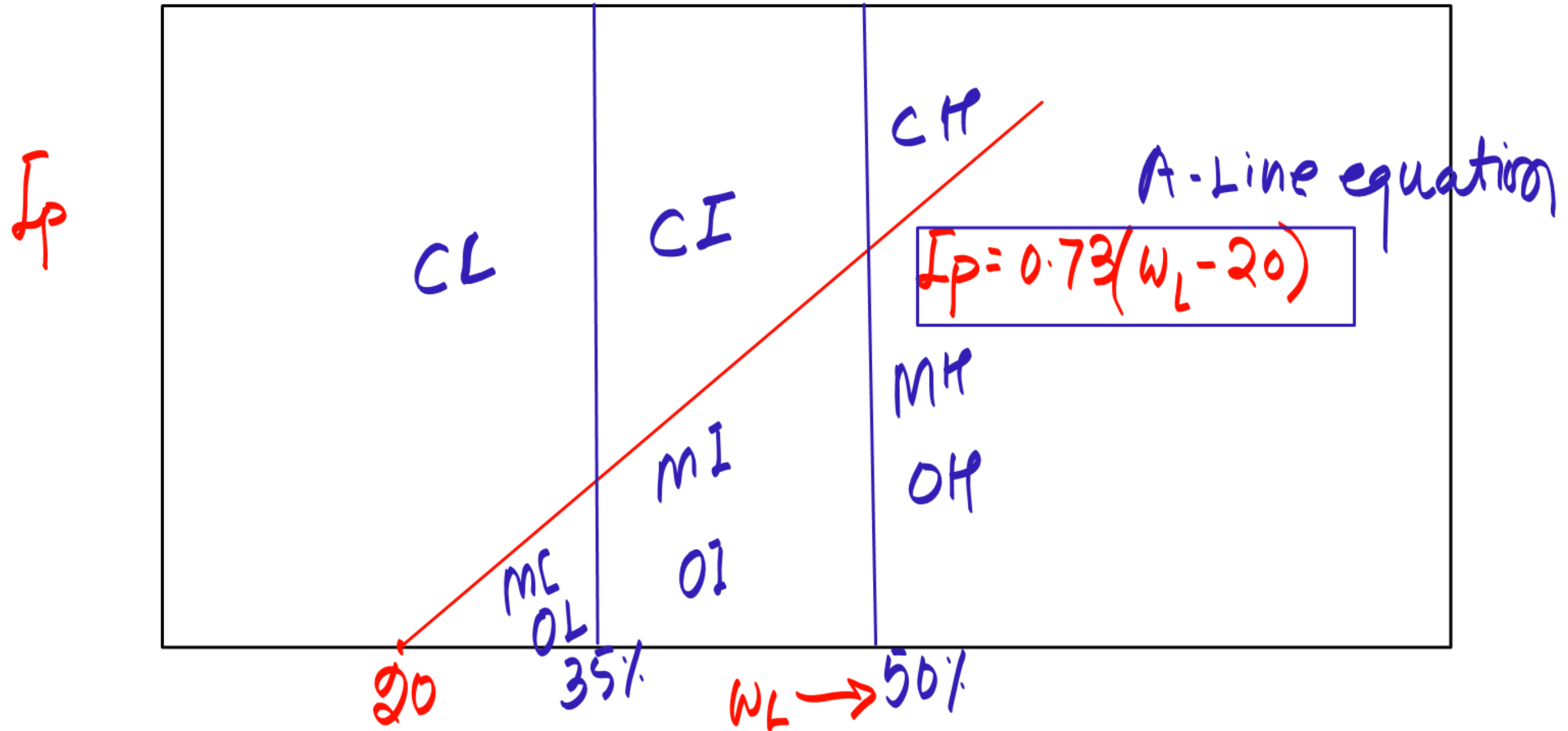
Inorganic silt (M)

Inorganic clay (C)

Organic soil (O)

✓ Comp. of soil
F.G.S ✓ Low $W_L < 35\%$
Intermediate $35\% < W_L < 50\%$
High $W_L > 50\%$

CLASSIFICATION OF FINE GRAINED SOIL



CLASSIFICATION OF FINE GRAINED SOIL

A-Line

* Used when $w_L > 20\%$.

2 Imp. Concept

I_p concept

$I_p > 7$

$I_p < 4$

A-Line

(above & below)

CLASSIFICATION OF FINE GRAINED SOIL

if $w_L \leq 20\%$

I_p concept

$I_p < 4$ (silt)

$I_p > 7$ (clay)

w_L is not given
 I_p concept is used.

CLASSIFICATION OF FINE GRAINED SOIL

exⁿ

$$W_L = 40\%$$

$$W_p = 20\%$$

$$I_p = W_L - W_p$$

$$= 40 - 20$$

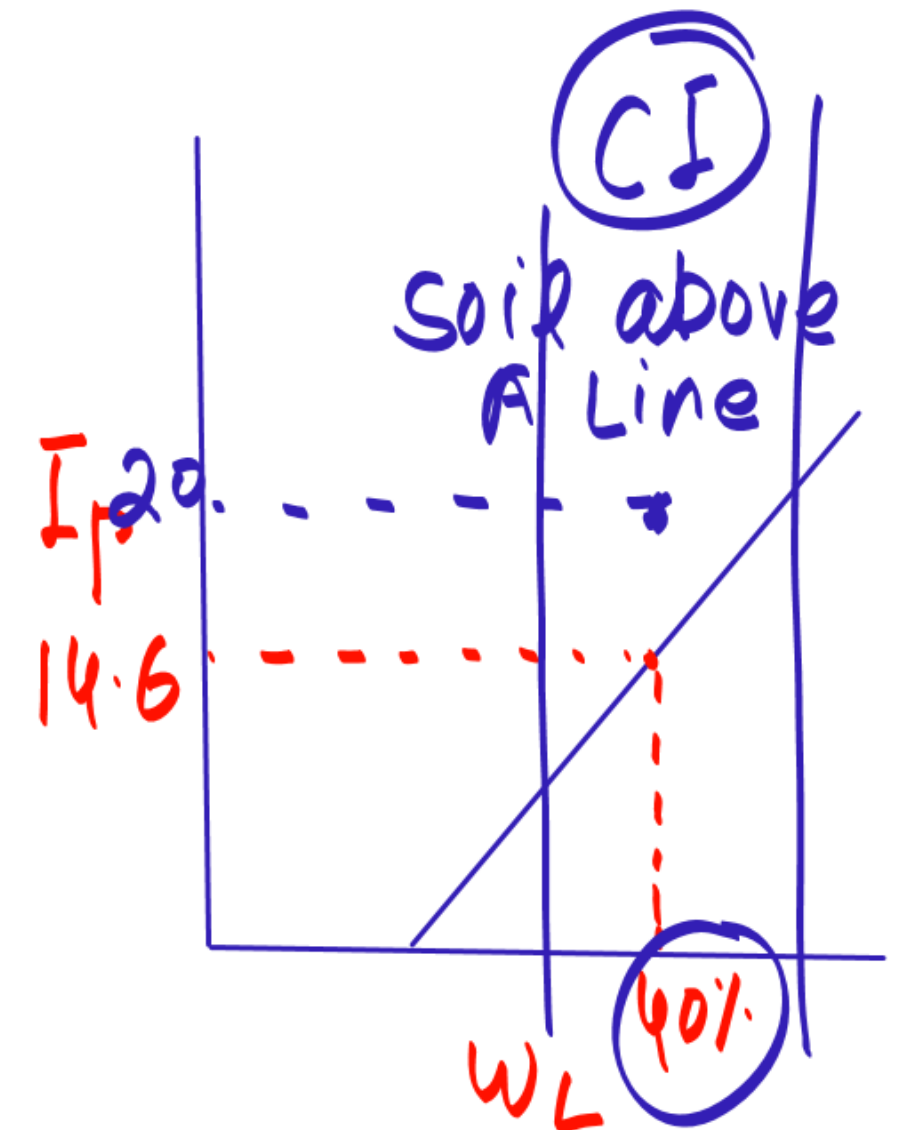
$$= 20 \checkmark$$

From A-line

$$I_p = 0.73(W_L - 20)$$

$$= 0.73(40 - 20)$$

$$= 14.6$$



CLASSIFICATION OF FINE GRAINED SOIL

Ques →

Step 1 CGS or FGS

Step 2

part A → soil is CGS

Fineness < 5% 5-12% > 12%

part B → soil is fine grain soil

CLASSIFICATION OF FINE GRAINED SOIL

* w_L of soil

if w_L is given



if w_L is Not given
Ip Concept is used.

$w_L > 20\%$

A line equation

$w_L \leq 20\%$

Ip Concept

CLASSIFICATION OF FINE GRAINED SOIL

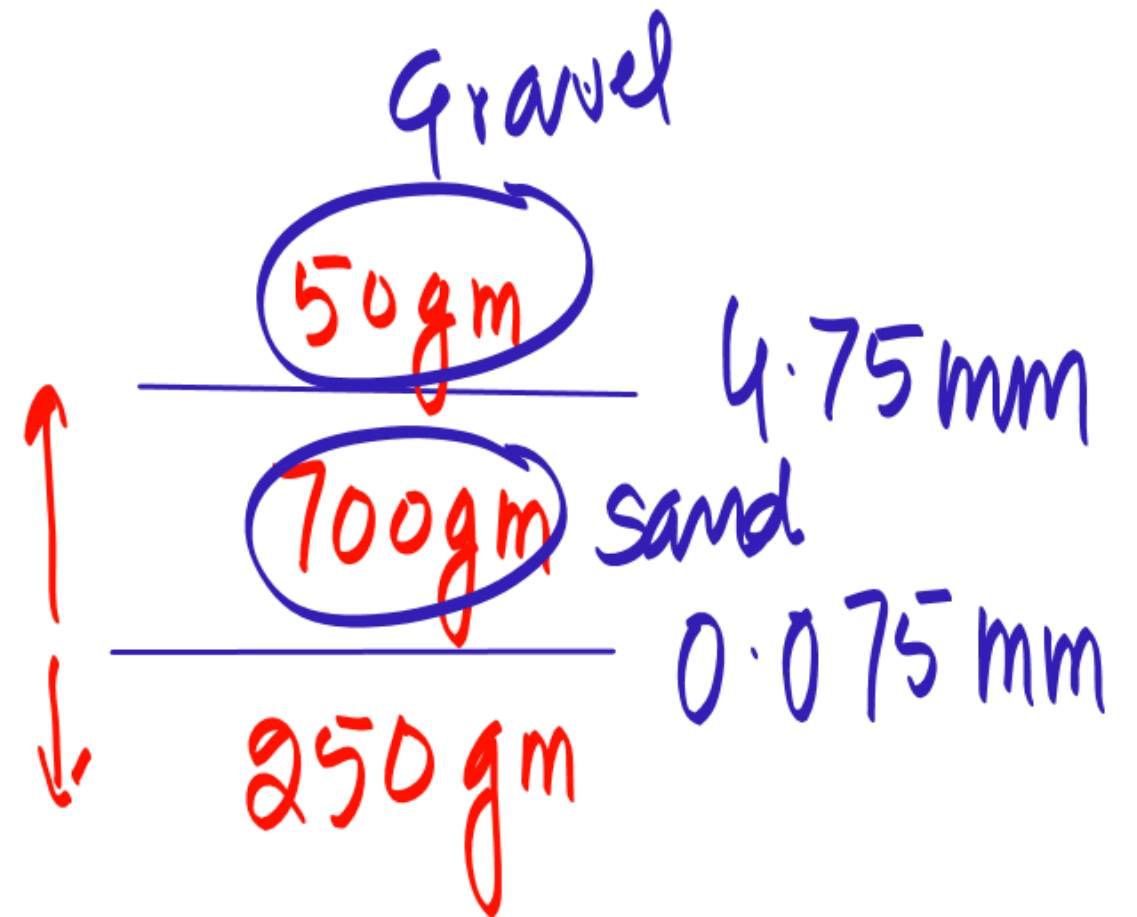
A dry soil sample 1000gm, 950gm passes through 4.75mm
 250gm passes through 75µ

$$w_L = 40\%$$

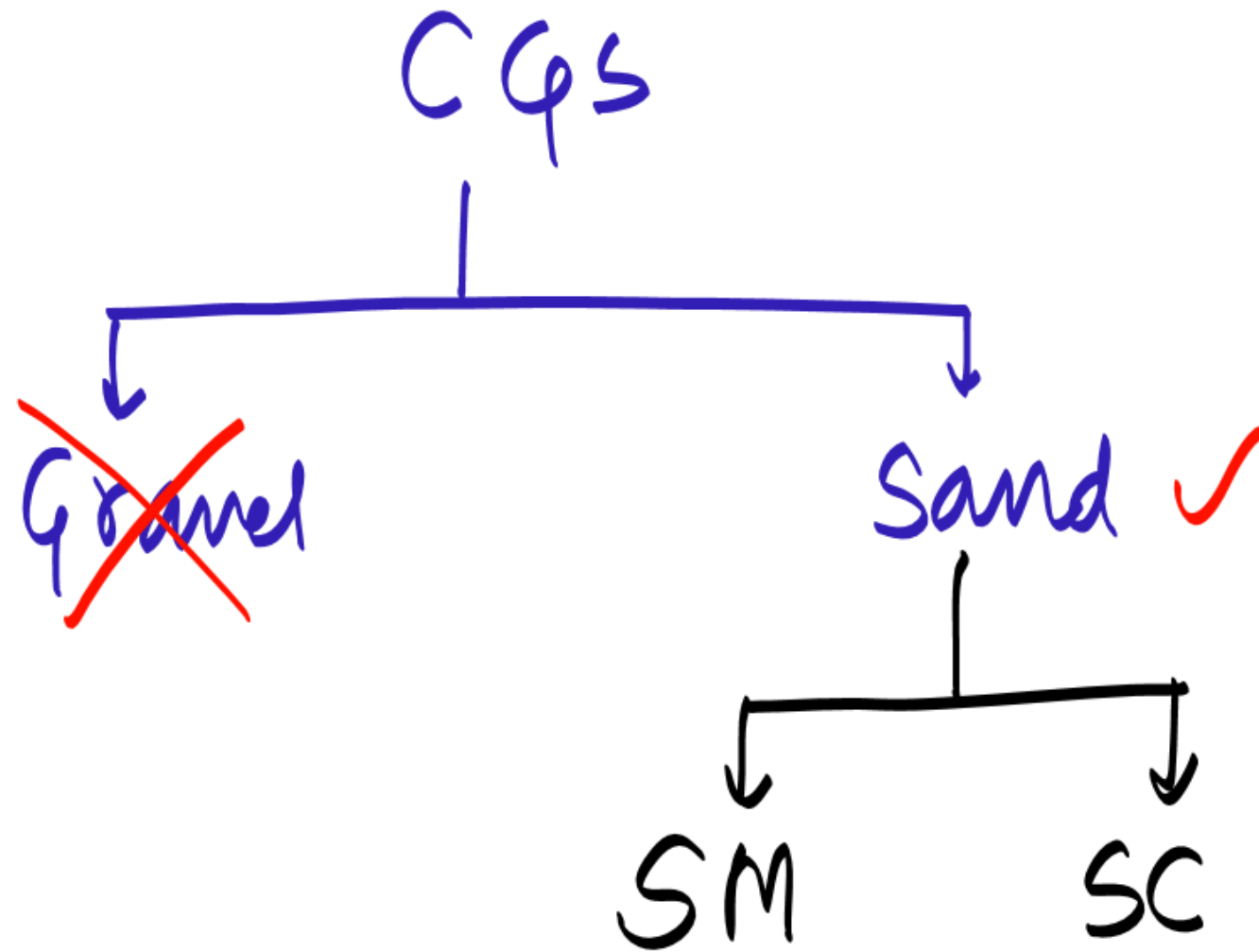
$$w_p = 18\%$$

75% CFS

25% FFS



CLASSIFICATION OF FINE GRAINED SOIL



* Fineness > 12%

Silt & clay \checkmark
Grade X

CLASSIFICATION OF FINE GRAINED SOIL

A-Line

$$I_p = 0.73(W_L - 20)$$
$$= 0.73(40 - 20)$$

$$I_p = 14.6$$

$$I_p = W_L - W_p$$
$$= 40 - 18$$
$$= 22\%$$

Soil is above A-Line

SC

 Ans

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Live ✓
Rec ✓
Test ✓
Ebook ✓

Y293
↓
78%